

ABSTRACT OF THE DISCLOSURE

A high strength multi-component alloy contains multi-principal elements and is formulated under a design concept different from the prior art. The multi-component alloy contains Fe, Co, Ni, Cr, Cu and Al as main elements. Each main element of the multi-component alloy is in the range of about 5 to about 35 atom% based on the total number of atoms of the alloy. The multi-component alloy has high strength at high temperature.